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Applicant : J. Carl Cooper
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Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Via Fax # (703) 872-9306

APPLICATION IN APPEAL

Per request from Mr. Justin Michalski attached hereto is a clean copy of the Appendix of claims (with revised status identifiers) being appealed.

Respectfully Submitted,



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I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office, Fax No. (703) 872-9306 on December 2, 2004.



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APPENDIX

Claim 1 (previously presented) A system for providing a mix minus signal from a delayed feedback signal and a relatively undelayed talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay or gain responsive to human operator adjustment;

said feedback signal and said cancellation signal being applied to a combining circuit to provide said mix minus signal with said feedback signal being applied without the use of a variable delay circuit.

Claim 2 (previously presented) A system for providing a mix minus signal from a delayed feedback signal and a relatively undelayed talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of at least one of said delay or gain responsive to said mix minus signal or said feedback signal or both;

said feedback signal and said cancellation signal being applied to a combining circuit to provide said mix minus signal with said feedback signal being applied without the use of a variable delay circuit.

Claim 3 (previously presented) A system for providing a mix minus signal from a delayed feedback signal and a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay and gain automatically responsive to at least one of said mix minus signal and said feedback signal and;

said feedback signal and said cancellation signal being applied to a combining circuit to provide said mix minus signal with said feedback signal being applied without the use of a variable delay circuit.

Claim 4 (original) A system as claimed in claim 1, 2 or 3 wherein said amount of said delay is responsive to said feedback signal and the amount of said gain is responsive to said mix minus signal.

Claim 5 (previously presented) A system as claimed in claim 1, 2 or 3 wherein said amount of said delay is responsive to said mix minus signal and the amount of said gain is responsive to said feedback signal.

Claim 6 (original) A system as claimed in claim 1, 2 or 3 wherein said amount of said delay and said amount of said gain is responsive to said feedback signal.

Claim 7 (previously presented) A system as claimed in claim 1, 2 or 3 wherein said amount of said delay and said amount of said gain is responsive to said mix minus signal.

Claim 8 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal is in delayed form.

Claim 9 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in delayed form.

Claim 10 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal is in undelayed form.

Claim 11 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in undelayed form.

Claim 12 (previously presented) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain circuit.

Claim 13 (previously presented) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain circuit.

Claim 14 (previously presented) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain circuit.

Claim 15 (previously presented) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain circuit.

Claim 16 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said cancellation signal.

Claim 17 (original) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said cancellation signal.

Claim 18 (original) A system as claimed in claim 1, 2 or 3 wherein said delay is automatically adjustable in response to changes in relative delay of said talent signal and the talent signal component of said feedback signal.

Claim 19 (previously presented) A system as claimed in claim 1, 2 or 3 wherein said delay is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said gain is automatically adjusted in response to said mix minus signal and said talent signal in delayed form.

Claim 20 (previously presented) A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay arising from its passage through a broadcast transmission including the steps of:

- a) delaying said talent signal by a varying delay amount in response to said variable amount of delay;
- b) providing a cancellation signal of a known level in response to said delayed talent signal;
- c) changing said varying delay amount of said delay in step a) from time to time;

- d) combining said feedback signal and said cancellation signal to provide said mix minus signal wherein said feedback signal is combined without additional variable delay beyond said variable amount.

Claim 21 (previously presented) A method of providing a mix minus signal from a feedback signal and a talent signal which have a variable relative timing arising from a broadcast transmission, including the steps of:

- a) delaying said talent signal by a varying delay amount in response to said varying relative timing;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;
- c) in said delaying step a) or said adjusting step b) or both, changing the amount of at least one of said varying delay amount or said level in responsive to said mix minus signal or said feedback signal or both;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal wherein said feedback signal receives no variable delay beyond that as part of said broadcast transmission.

Claim 22 (previously presented) A method for providing a mix minus signal from a feedback signal from a broadcast transmission and a talent signal said signals having a relative delay which may vary due to said broadcast transmission, including the steps of:

- a) delaying said talent signal by an varying delay amount responsive to said relative delay which may vary;
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) wherein in step a) said varying delay amount and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal wherein said feedback signal suffers no variable delay beyond that as part of said broadcast transmission.

Claim 23 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is responsive to said feedback signal and said level of step b) is responsive to said mix minus signal.

Claim 24 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is responsive to said mix minus signal and said level of step b) is responsive to said feedback signal.

Claim 25 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) and said level of step b) is responsive to said feedback signal.

Claim 26 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal.

Claim 27 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said talent signal in delayed form.

Claim 28 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in delayed form.

Claim 29 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal in undelayed form.

Claim 30 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said feedback signal and said talent signal wherein said talent signal is in undelayed form.

Claim 31 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said step b).

Claim 32 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said step b).

Claim 33 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said step b).

Claim 34 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said step b).

Claim 35 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said cancellation signal.

Claim 36 (previously presented) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said mix minus signal and said cancellation signal.

Claim 37 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is automatically adjustable in response to changes in relative delay of said talent signal and the talent signal component of said feedback signal.

Claim 38 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said level of step b) is automatically adjusted in response to said mix minus signal and said talent signal in delayed form.

Claim 39 (previously presented) A method as claimed in claim 20, 21 or 22 wherein said delaying of step a) include pitch correction in order that the pitch of said talent signal remains constant as said delay is changed.

Claim 40 (previously presented) A system for providing a mix minus signal from a feedback signal having a relative delay with respect to a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in an amount set by a human operator and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal.

Claim 41 (previously presented) A system as in claim 40 wherein said gain adjustment of said talent signal operates in a fashion such that said mix minus signal intentionally includes an audible residual amount of said talent signal.

Claim 42 (previously presented) A system as in claim 40 wherein said delay amount of said talent signal is automatically changed from said amount set by a human operator to the expected amount of said relative delay of said feedback signal with respect to said talent signal when said relative delay changes.

Claim 43 (previously presented) A system for providing a mix minus signal from a feedback signal delayed by a first amount relative to a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal by an amount set by a human operator to the expected value of said first amount and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal.

Claim 44 (previously presented) A system for providing a mix minus signal from a feedback signal delayed by a first amount relative to a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal by an amount set by a human operator in response to the expected value of said first amount and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said gain responsive to said mix minus signal or said feedback signal or both and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal.

Claim 45 (previously presented) A system as in claim 43 or 44 wherein said mix minus signal intentionally includes an audible residual amount of said talent signal which amount is responsive to human operator adjustment.

Claim 46 (previously presented) A method of providing a mix minus signal from a feedback signal which is delayed by a first amount and a talent signal including the steps of:

- a) delaying said talent signal by an amount set by a human operator in response to the expected value of said first amount;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof and;
- c) providing said mix minus signal in response to said feedback signal and said cancellation signal.

Claim 47 (previously presented) A method as in claim 46 wherein step b) or c) or both operate in a fashion such that said mix minus signal intentionally includes a residual audible amount of said talent signal.

Claim 48 (previously presented) A method as in claim 46 wherein step a) includes automatically changing the amount of delay of said talent signal from said amount set by said human operator to said first amount.

Claim 49 (previously presented) A method for providing a mix minus signal from a feedback signal delayed by a first amount and a talent signal including the steps of:

- a) delaying said talent signal by an amount set by a human operator in response to the expected value of said first amount;
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) automatically varying said delay amount of step a) from said expected value to said first value and;

- d) providing said mix minus signal in response to said feedback signal and said cancellation signal.

Claim 50 (previously presented) A method of providing a mix minus signal from a feedback signal delayed by a first amount and a talent signal including the steps of:

- a) delaying said talent signal by a delay amount set by a human operator in response to the expected value of said first amount;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;
- c) in said delaying step a) or said adjusting step b) or both, automatically changing the amount of at least one of said delay amount or said level in responsive to at least one of said mix minus signal or said feedback signal and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal.

Claim 51 (previously presented) A method as in claim 49 or 50 wherein said mix minus signal intentionally includes a residual audible amount of said talent signal which amount is responsive to human operator adjustment.

Claim 52 (previously presented) A method as in claim 49 or 50 wherein in step c) includes automatically changing the amount of delay of said talent signal from said amount set by said human operator to said first amount after said delay of step a) is set by said human operator.

Claim 53 (previously presented) A method as in claim 49 or 50 wherein in step c) includes automatically changing the amount of delay of said talent signal from said amount set by said human operator to match said first amount in response to changes in said first amount.